

PRE-ALGEBRA SET

Name _____

Numbers, Fractions & Percent

DO YOUR FIGURING HERE

- 1) Train A travels at 90 miles per hour and covers 360 miles. Train B covers the same distance but travels at 60 miles per hour. How much longer does it take Train B than Train A to cover that distance?

A. 9 hours
B. 6 hours
C. 4 hours
D. 3 hours
E. 2 hours

$$A = \frac{360}{90} = 4$$

$$B = \frac{360}{60} = 6$$

$$6 - 4 = 2$$

$$A = \frac{360}{90} = 4$$

$$B = \frac{360}{60} = 6$$

$$B^2 - A^2 = 6^2 - 4^2 = 2$$

- 2) Determine the Greatest Common Factor of 45 and 41.

A. 9
B. 7
C. 5
D. 3
E. 1

$$\begin{array}{r|rr} 5 & 45 & 41 \\ 3 & 9 & \downarrow \\ 1 & 3 & \downarrow \\ & 3 & 41 \end{array}$$

$$\begin{array}{r|rr} 5 & 45 & 41 \\ 3 & 9 & \downarrow \\ 1 & 3 & 41 \end{array}$$

- 3) What is the least number that is divisible by 5, 6 and 15?

A. 60
B. 30
C. 15
D. 5
E. 3

$$\begin{array}{r|rrr} 5 & 6 & 15 \\ 3 & 2 & 5 \\ 1 & 2 & 3 \end{array}$$

$$\begin{array}{r|rrr} 5 & 6 & 15 \\ 3 & 2 & 3 \\ 1 & 2 & 1 \end{array}$$

- 4) Three clocks ring once at the same time. After that, the first clock rings after every 90 minutes, the second after every 30 minutes, and third after every 60 minutes. After how many minutes will they again ring together? LCM

A. 60
B. 90
C. 120
D. 180
E. 240

$$\begin{array}{r|rrr} 90 & 30 & 60 \\ 30 & 3 & 2 \end{array}$$

- 5) In Mrs B's class, $\frac{2}{3}$ of the students are good in Math. Of them $\frac{1}{2}$ of them score more than 90. What fractional part of Mrs. B's class scored more than 90%?

A. $\frac{1}{3}$
B. $\frac{2}{5}$
C. $\frac{3}{5}$
D. $\frac{3}{4}$
E. $\frac{3}{6}$

$$\frac{2}{3} \cdot \frac{1}{2} = \frac{2}{6} = \frac{1}{3}$$

$$\frac{1}{2} \text{ of them } \left(\frac{2}{3}\right)$$

$$\frac{1}{2} \cdot \frac{2}{3} = \frac{2}{6} = \frac{1}{3}$$

or

$$\frac{2}{3} \div 2 = \frac{2}{3} \cdot \frac{1}{2} = \frac{2}{6} = \frac{1}{3}$$